

IN THE CLAIMS:

The claims are not being amended at this time.

1 - 30. (Cancelled)

31. (Previously Presented) A method of preventing diffusion from a copper conductive layer through an underlying tantalum-comprising barrier layer, comprising:

(a) depositing said tantalum-comprising barrier layer in a manner such that said tantalum-comprising barrier layer is variable in thickness and continuous, wherein at least a portion of said tantalum-comprising barrier layer has a thickness in the range of about 5 Å, but not less than 5 Å; and

(b) depositing said copper layer over said tantalum-comprising layer.

32. (Previously Presented) A method in accordance with Claim 31, wherein said tantalum-comprising layer is tantalum.

33. (Previously Presented) A method in accordance with Claim 31, wherein said tantalum-comprising barrier layer is applied using physical vapor deposition.

34. (Previously Presented) A method in accordance with Claim 33, wherein said physical vapor deposition comprises a sputtering technique.

Respectfully submitted,



Shirley L. Church
Registration No. 31,858
Attorney for Applicants
(650) 473-9700

Correspondence Address:
Patent Counsel
Applied Materials, Inc.
P.O. Box 450-A
Santa Clara, CA 95052